Reviewer’s report

Title: The role of increased body mass index in outcomes of sepsis: A systematic review and meta-analysis

Version: 0 Date: 27 Jun 2017

Reviewer: Joyce Chang

Reviewer’s report:

This is a well done systematic review and meta-analysis with sound statistical analysis and a great and interesting discussion. This is also a very pertinent topic given the implications it could have treating sepsis.

However, there is a recent systematic review and meta-analysis that was published in June 2016 in Critical Care which you did cite. (Pepper DJ, Sun J, Welsh J, Cui X, Suffredini AF, Eichacker PQ. Increased body mass index and adjusted mortality in ICU patients with sepsis or septic shock: a systematic review and meta-analysis. Crit Care. 2016; 20:181.) Both of your studies have the same results regarding overweight being associated with lower mortality, they did not look at hospital and ICU LOS. Looking through your included studies, only 1 study was published after their database search parameter which primarily focused on type of adipose tissue versus actual BMI. (Pisitsak 2016). There was information on patient BMI but they were divided into BMI < 25 and BMI > 25 rather than the breakdown of underweight, normal, overweight, obese, morbidly obese. And in your paper you did mention that underweight people in general had higher mortality, and these patients would fall under BMI < 25. Can you demonstrate how your study is significantly different from this study that is published so recently with similar results?

Also, in the discussion, could you provide clarification as to what it means to treat obesity earlier and how that pertains to patients admitted for sepsis?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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